



Dart Aerospace Ltd.
1270 Aberdeen St
Hawkesbury, ON
K6A 1K7
Canada

Tel (613) 632-5200

D2893-1

Job Sheet 177155



Part No: D2893-1

Job Qty: 12 ea

Part Name: Support



Part Weight: 0 lbs

Status: Scheduled

Priority: Medium

Job Created: 5/8/18

Job Tracking No:

Due Date: 6/1/18

Created By: Marie Lajeunesse

Type: Stock

Description:

Note: DWG REV C IPP: C 02.11.26 Reformat; Added P/O KJ IPP D 06.04.19 removed alodine EC IPP Rev:E Added priming as per Rev B 07-04-30 JLM IPP F 08.03.19 Re-format EC verified by: DD IPP Rev:G 08-05-15 add QC14 DD verified by:EC IPP Rev:H 11.08.04 as per dwg rev.C DD verf:EC

Ship Via:

Bill of Materials

Job Routing

Op No	Operation	Qty	Start Date	Due Date	Standard		Workcenter/Supplier		Sign-off
					Setup hrs	Run Hrs	Workcenter / Supplier	Lead Time	
90	Start up Operation	12 Ea	6/1/18	6/1/18	0.00	0.00	Start Up Machining-1		
100	CNC Vertical Machining	12 pcs	6/1/18	6/1/18	0.33	23.53	HAAS1-2		18/05/18
120	QC	12 pcs	6/1/18	6/1/18	0.00	0.00	QC8 Machining-1		18-06-02
130	Crosstubes	12 pcs	6/1/18	6/1/18	0.00	2.00	Crosstubes-2		ASAG JUN 02 2018
140	QC	12 pcs	6/1/18	6/1/18	0.00	0.00	QC3		38
170	Packaging	12 pcs	6/1/18	6/1/18	0.00	0.00	Packaging3-1	LG050	AS 9-88 JUN 04 2018
180	QC21-SA	12 Ea	6/1/18	6/1/18	0.00	0.00	QC21		JUN 04 2018

Part Op 100 - 1-Machine as per Folio FA081

Descriptions: 130 - Per note 8 on page 1 of dwg D2893, Prep inner concave surface of support and apply 3M Scotch-Weld as per dwg.

170 - LOCATION : LG050

Job BOM

Part / Item	Component Name	Quantity	Operation	Container
DSK078	D2893-1 Turning Detail	6 Ea (.5 ea)	90-Start up Operation	

Job Allocations

Operation	Component Part	Required	Inventory	Allocated
90-Start up Operation	DSK078	6	6	0

Part Specifications

Spec No	Description	Target/Tolerance	Limits	Type	Special Comments
1	2.750 Support	2.985Inches	+ 0.020 - 0.000	3.005 2.985	
2	2.750 Support	0.440Inches	+ 0.020 - 0.000	0.460 0.440	
3	2.750 Support	0.125Inches	+ 0.035 - 0.000	0.160 0.125	
4	2.750 Support	0.040Inches	+ 0.020 - 0.000	0.060 0.040	
5	2.750 Support	0.188Inches	+ 0.005 - 0.000	0.193 0.188	

DQA: _____ Date: _____

WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐																																																													
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval																																																										
Description Work Order Deviation				Disposition				Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval																																																									
Root Cause		FAULT CATEGORY																																																															
Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐	Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐	Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐	Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐	Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐	Material ☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐	Internal Transport ☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐	Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐	LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐	Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐	Past Expiry Date ☐	Manufacturing Process ☐	OTHER : _____			
Misidentified ☐	Past Due ☐																																																																

6	2.750 Support	0.125Inches	+ 0.035 - 0.000	0.160 0.125
7	2.750 Support	0.140Inches	+ 0.020 - 0.000	0.160 0.140
8	2.750 Support	1.360Inches	+ 0.040 - 0.000	1.400 1.360
9	2.750 Support	0.040Inches	+ 0.020 - 0.000	0.060 0.040
10	2.750 Support	1.190Inches	+ 0.040 - 0.000	1.230 1.190
11	2.750 Support	0.010Inches	+ 0.010 - 0.000	0.020 0.010
12	2.750 Support	0.053Inches	+ 0.020 - 0.000	0.073 0.053
13	2.750 Support	0.240Inches	+ 0.020 - 0.000	0.260 0.240
14	2.750 Support	2.518Inches	+ 0.020 - 0.000	2.538 2.518
15	2.750 Support	84.390Inches	+ 6.000 - 0.000	90.390 84.390
16	2.750 Support	0.261Inches	+ 0.005 - 0.000	0.266 0.261
17	2.750 Support	0.053Inches	+ 0.020 - 0.000	0.073 0.053

Plex 5/8/18 10:09 AM Dart.lajeunesse.marie

DART
AEROSPACE

Container No: S077238

Part: D2893-1

Job No: 177155

Serial No/Batch: S077238

Revision:

Inspector:

Exp Date: 06/01/2018

Instructions:

ICRU AUSTRALIAN GROUP
Hawkesbury, ON K64 1K7
CANADA
TEL.: 1 813 832-5200
Email: sales@dartaero.com
www.dartaerospace.com

Date: 06/01/18

DQA: _____ Date: _____

WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
Date : _____	Step #: _____	QTY Effective : _____		MRB (QSI042) Approval	
Description Work Order Deviation		Disposition		Completed By	
				Lead hand / Supervisor Approval Verification	
				QC / QA Coordinator Approval	
Root Cause		FAULT CATEGORY			
Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐	No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐	Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐	Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐	Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center ☐	Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐
OTHER : _____					

DART AEROSPACE LTD		Work Order:	177155
Description: Ø2.750 Support		Part Number:	D2893-1
Inspection Dwg: D2893	Rev: C	Page 1 of 1	

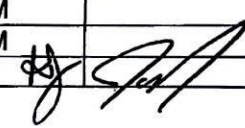
FIRST ARTICLE INSPECTION DIMENSION SHEET

				Record Actual Dimensions				
Dim	Min	Max	Go/No Go Gauge	1	2	3	4	5
HAAS Section								
AA	2.985	3.005		2.991	2.990	2.991	2.992	2.996
AB	0.440	0.460		0.450	0.449	.455	.455	.454
AC	0.125	0.160		0.140	0.140	.140	.140	.142
AD	0.040	0.060		0.050	0.050	.049	.050	.055
AE	0.188	0.193		0.188	0.188	.188 Ø	.188 Ø	.188 Ø
AF	0.125	0.160		0.140	0.140	.140	.140	.138
AG	0.140	0.160		0.150	0.150	.154	.155	.152
AH	1.360	1.400		1.380	1.378	1.378	1.378	1.376
AI	0.040	0.060		0.048	0.048	.050	.050	.048
AJ	1.190	1.230		1.217	1.214	1.220	1.222	1.215
AK	0.010	0.020		0.010	0.010	.010	.010	.010
AL	0.053	0.073		0.0625	0.0625	.063 R	.063 R	.063 R
AM	0.240	0.260		0.250	0.250	R.250	R.250	R.250
AN	2.518	2.538		2.522	2.522	2.535	2.536	2.534
AO	84.39	90.39		87.39	87.39	88.00	88.00	88.00
AP	0.261	0.266		0.261	0.261	.261	.261	.261
AQ	0.053	0.073		0.0625	0.0625	.063 R	.063 R	.063 R
AR								
AS								
AT								
Accept/Reject								

Measured by: 12.11/100K **Date:** 2018/05/31

Audited by: B.E **Date:** 18-06-02

Preliminary Approval: **Date:**

Rev	Date	Change	Revised by	Approved
A	02.12.13	New Issue	KJ/RF	
B	07.05.08	Dimension AP revised	KJ/JLM	
C	08.04.21	Reformat	KJ/JLM	
D	12.07.31	Dwg Rev updated	KJ	

DART AEROSPACE LTD		Work Order:	
Description: Ø2.750 Support		Part Number: D2893-1	
Inspection Dwg: D2893		Rev: C	
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FIRST ARTICLE INSPECTION DIMENSION SHEET

Dim	Min	Max	Go/No Go Gauge	Record Actual Dimensions				
				6	7	8	9	10
HAAS Section								
AA	2.985	3.005		2.997	2.995	2.996	2.996	2.997
AB	0.440	0.460		.455	.456	.455	.455	.454
AC	0.125	0.160		.139	.141	.140	.139	.139
AD	0.040	0.060		.054	.055	.055	.056	.055
AE	0.188	0.193	Ø	Ø.188	Ø.188	Ø.188	Ø.188	Ø.188
AF	0.125	0.160		.142	.140	.141	.144	.143
AG	0.140	0.160		.154	.155	.153	.155	.154
AH	1.360	1.400		1.377	1.376	1.376	1.375	1.376
AI	0.040	0.060		.046	.045	.047	.048	.046
AJ	1.190	1.230		1.214	1.218	1.218	1.217	1.216
AK	0.010	0.020		.010	.010	.010	.010	.010
AL	0.053	0.073	R	R.063	R.063	R.063	R.063	R.063
AM	0.240	0.260	R	R.250	R.250	R.250	R.250	R.250
AN	2.518	2.538		2.538	2.538	2.538	2.538	2.538
AO	84.39	90.39	°	88.00°	88.00°	88.00°	88.00°	88.00°
AP	0.261	0.266	Ø	Ø.261	Ø.261	Ø.261	Ø.261	Ø.261
AQ	0.053	0.073	R	R.063	R.063	R.063	R.063	R.063
AR								
AS								
AT								
Accept/Reject								

Measured by:	<i>M. M. / [Signature]</i>	Date:	2018/05/31
Audited by:	<i>B. P.</i>	Date:	18-06-02
Preliminary Approval:		Date:	

Rev	Date	Change	Revised by	Approved
A	02.12.13	New Issue	KJ/RF	
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DART AEROSPACE LTD		Work Order:	
Description: Ø2.750 Support		Part Number:	D2893-1
Inspection Dwg: D2893	Rev: C	Page 1 of 1	

FIRST ARTICLE INSPECTION DIMENSION SHEET

Dim	Min	Max	Go/No Go Gauge	Record Actual Dimensions				
				1	12	3	4	5
HAAS Section								
AA	2.985	3.005		2.997	2.997			
AB	0.440	0.460		.455	.455			
AC	0.125	0.160		.139	.140			
AD	0.040	0.060		.055	.055			
AE	0.188	0.193		.188Ø	.188Ø			
AF	0.125	0.160		.142	.142			
AG	0.140	0.160		.154	.154			
AH	1.360	1.400		1.374	1.376			
AI	0.040	0.060		.048	.047			
AJ	1.190	1.230		1.216	1.218			
AK	0.010	0.020		.010	.010			
AL	0.053	0.073		R.063	R.063			
AM	0.240	0.260		R.250	R.250			
AN	2.518	2.538		2.538	2.538			
AO	84.39	90.39		88.00°	88.00°			
AP	0.261	0.266		.261Ø	.261Ø			
AQ	0.053	0.073		.063 R	.063 R			
AR								
AS								
AT								
Accept/Reject								

Measured by:	<i>M.M. / MK</i>	Date:	<i>2018/06/01</i>
Audited by:	<i>A.A</i>	Date:	<i>18-06-02</i>
Preliminary Approval:		Date:	

Rev	Date	Change	Revised by	Approved
A	02.12.13	New Issue	KJ/RF	
B	07.05.08	Dimension AP revised	KJ/JLM	
C	08.04.21	Reformat	KJ/JLM	
D	12.07.31	Dwg Rev updated	KJ	<i>[Signature]</i>